



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200
Fax 613 632-5246

RBW6305G11331-3G-07

Job Sheet 198070



Part No: RBW6305G11331-3G-07

Job Qty: 6 pcs

Part Name: Lugs



Part Weight: 0 lbs

Status: New

Priority: Medium

Job Created: 7/22/19

Job Tracking No:

Created By: Marie Lajeunesse

Due Date: 9/20/19

Type: SOLD

Description:

Note: DWG RBW6305G11331-3G Rev. C IPP Rev. A 18.05.09 new issue DP Verify DD

Ship Via:

Bill of Materials

Job Routing

Op No	Operation	Qty	Start Date	Due Date	Standard Setup Hrs	Run Hrs	Workcenter/Supplier	Sign-off
120	SL-154 - 1	6 pcs	9/20/19		1.50	0.75	SL-154 - 1	
130	QC 2	6 pcs	9/20/19		0.00	0.00	QC 2 - 1	
							QC 2 - 12	
							QC 2 - 14	
							QC 2 - 17	
							QC 2 - 19	
							QC 2 - 2	
							QC 2 - 20	
							QC 2 - 22	
							QC 2 - 23	
							QC 2 - 25	
							QC 2 - 32	
							QC 2 - 33	
							QC 2 - 35	
							QC 2 - 39	
							QC 2 - 4	
							QC 2 - 40	
							QC 2 - 44	
							QC 2 - 45	
							QC 2 - 48	
							QC 2 - 49	
							QC 2 - 50	
							QC 2 - 51	
							QC 2 - 52	
							QC 2 - 57	
							QC 2 - 62	
							QC 2 - 63	
							QC 2 - 8	
							QC 2 - 66	
							QC 2 - 64	
							QC 2 - 65	



Container No: S206536



Part: RBW6305G11331-3G-07

Job No: 198070

Serial No/Batch: S206536

Revision: C

Inspector:

Exp Date:

Instructions:

Dart Aerospace Ltd.
1270 Aberdeen Street
Hawkesbury, ON K6A 1K7
CANADA
TEL.: 1 613 632-5200
Email: sales@dartaero.com
www.dartaerospace.com

Date: 08/19/19

Plex 7/22/19 10:54 AM Dart.lajeunesse.marie

140 QC 8	6 pcs	9/20/19	0.00 0.00	QC 2 - 5	
				QC 2 - 71	
				QC 2 - 73	
				QC 2 - 69	
				QC 8 - 12	
				QC 8 - 14	Fuk 19/08/19
				QC 8 - 17	
				QC 8 - 20	
				QC 8 - 25	
				QC 8 - 3	
				QC 8 - 32	
				QC 8 - 33	
				QC 8 - 35	
				QC 8 - 39	
				QC 8 - 4	
				QC 8 - 44	
				QC 8 - 45	
				QC 8 - 49	
				QC 8 - 58	
				QC 8 - 8	
				QC 8 - 9	
				QC 8 - 68	
				QC 8 - 67	
				QC 8 - 1 (A)	
				QC 8 - 47	
				QC 8 - 40	
				QC 8 - 52	
				QC 8 - 23	
				QC 8 - 57	
150 Outsource - 1 - Heat Treat	6 pcs	9/20/19	0.00 0.00	ATL002	2019-08-21
160 Packaging 2-1 - Receive - B4B	6 pcs	9/20/19	0.00 0.00	Packaging 2 - 1 - B4B	
36 pcs				Packaging 2 - 2 - B4B	
				Packaging 2 - 3 - B4B	
				Packaging 2 - 5 - B4B	AUG 29 2019
				Packaging 2 - 4 - B4B	
				Packaging 2 - 6 - B4B	
				Packaging 2 - 7 - B4B	
				Packaging 2 - 8 - B4B	
				Packaging 2 - 9 - B4B	
				Packaging 2 - 10 - B4B	
				Packaging 2 - 11 - B4B	
				Packaging 2 - 12 - B4B	
				Packaging 2 - 13 - B4B	
				Packaging 2 - 14 - B4B	
				Packaging 2 - 15 - B4B	
				Packaging 2 - 16 - B4B	
				Packaging 2 - 17 - B4B	
				Packaging 2 - 18 - B4B	
				Packaging 2 - 19 - B4B	
				Packaging 2 - 20 - B4B	
				Packaging 2 - 21 - B4B	
				Packaging 2 - 22 - B4B	
				Packaging 2 - 23 - B4B	
				Packaging 2 - 24 - B4B	
				Packaging 2 - 25 - B4B	
				Packaging 2 - 26 - B4B	
				Packaging 2 - 27 - B4B	
				Packaging 2 - 28 - B4B	
				Packaging 2 - 29 - B4B	

				Packaging 2 - 30 - B4B	
				Packaging 2 - 31 - B4B	
				Packaging 2 - 32 - B4B	
				Packaging 2 - 33 - B4B	
				Packaging 2 - 34 - B4B	
				Packaging 2 - 35 - B4B	
				Packaging 2 - 36 - B4B	
170 QC 6	6 pcs	9/20/19	0.00 0.00	QC 6 - 9	
				QC 6 - 68	DAS
				QC 6 - 61	61
				QC 6 - 40	9-89
				QC 6 - 81	
180 Packaging 3-1 - Stock - B4B	6 pcs	9/20/19	0.00 0.00	Packaging 3 - 1 - B4B	
				Packaging 3 - 2 - B4B	
				Packaging 3 - 3 - B4B	
				Packaging 3 - 4 - B4B	
				Packaging 3 - 5 - B4B	DAS
				Packaging 3 - 6 - B4B	28
				Packaging 3 - 7 - B4B	9-89
				Packaging 3 - 8 - B4B	
				Packaging 3 - 9 - B4B	
				Packaging 3 - 10 - B4B	
				Packaging 3 - 11 - B4B	
				Packaging 3 - 12 - B4B	
				Packaging 3 - 13 - B4B	
				Packaging 3 - 14 - B4B	
				Packaging 3 - 15 - B4B	
				Packaging 3 - 16 - B4B	
				Packaging 3 - 17 - B4B	
				Packaging 3 - 18 - B4B	
				Packaging 3 - 19 - B4B	
				Packaging 3 - 20 - B4B	
				Packaging 3 - 21 - B4B	
				Packaging 3 - 22 - B4B	
				Packaging 3 - 23 - B4B	
				Packaging 3 - 24 - B4B	
				Packaging 3 - 25 - B4B	
				Packaging 3 - 26 - B4B	
				Packaging 3 - 27 - B4B	
				Packaging 3 - 28 - B4B	
				Packaging 3 - 29 - B4B	
				Packaging 3 - 30 - B4B	
				Packaging 3 - 31 - B4B	
				Packaging 3 - 32 - B4B	
				Packaging 3 - 33 - B4B	
				Packaging 3 - 34 - B4B	
				Packaging 3 - 35 - B4B	
				Packaging 3 - 36 - B4B	
190 QC 21 - SA	6 pcs	9/20/19	0.00 0.00	QC 21 - SA - 21	DAS
				QC 21 - SA - 70	21
				QC 21 - SA - 53	9-89

Part Op 120 - SL-154 (MORI SL-154 LATHE) 1-Machine as per folio FC103 FOLIO REV: AA DWG REV:

Descriptions: E 2-Debur

130 - (QC2- Inspect parts off machine FAI/FAIB)

140 - (QC8- Inspect parts - second check)

150 - Outsource1 (Outsource process - Heat Treat) 1-Issue P/O to METCORE; P/O 44305 RC 30-35 2-Bead blast ***Do not blast critical dimension*** 3- Certificate of Conformity is required

160 - (Receive & Inspect for Damage & Mat'l Certs) Receive

170 - (QC6- All purchased or subcontracted products)

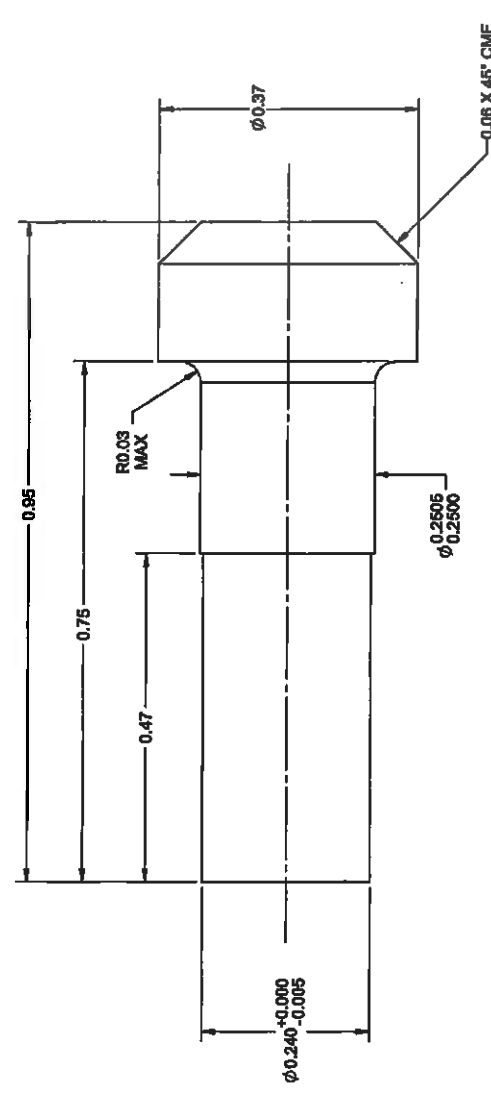
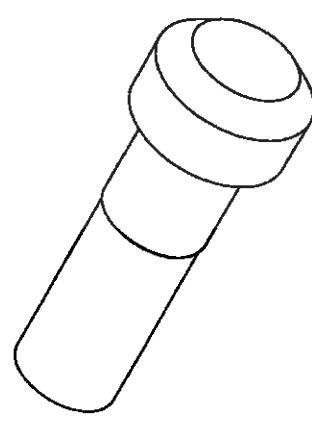
180 - (Identify as per dwg & Stock Location:) IDENTIFY AND STOCK

190 - (QC21- Final Inspection - Work Order Release)

Job BOM				
Part / Item	Component Name	Quantity	Operation	Container
MT-4140QT-R0.375	AISI 4140 Quenched & Tempered Steel Round Bar 0.375" Dia.	.4746 ft (.0791 ea)	120-SL-154 - 1	5154127
Job Allocations				
Operation	Component Part	Required	Inventory	Allocated
120-SL-154 - 1	MT-4140QT-R0.375	0	8	0
Part Specifications				
Specifications could not be found.				

Plex 7/22/19 10:54 AM Dart.lajeunesse.marie

8 7 6 5 4 3 2 1



SHOP COPY
RETURN TO
ENGINEERING
UNCONTROLLED COPY
SUBJECT TO AMENDMENT
WITHOUT NOTICE
WORK ORDER
NO. 198070115
1907-22

RBW6305G11331-3G-07 LUGS

- NOTES:
- 1) MATERIAL: 4140/4142 (28-32 RC)
 - 2) HEAT TREAT: 30-35 Rc
 - 3) FINISH: N/A
 - 4) TOLERANCES: X.X = $\pm 0.1"$ / $\pm 1"$
X.XX = $\pm 0.01"$ / $\pm 0.5"$
X.XXX = $\pm 0.005"$ / $\pm 0.1"$
X.XXXX = $\pm 0.0005"$ / $\pm 0.05"$
PARALLELISM, ECCENTRICITY AND SYMMETRY ABOUT ALL CENTER LINES = $\pm 0.005"$
 - 5) UNITS: INCHES UNLESS OTHERWISE NOTED
 - 6) BREAK SHARP EDGES: 0.005" TO 0.010"
 - 7) IDENTIFICATION: N/A

C	REV.		DESCRIPTION		ECN #	BY
	DESIGN	VM	DART AEROSPACE LTD			VM
C	DRAWN	VM 04/17/2018	HAWKSBURY, ONTARIO, CANADA			VM
	CHECKED	VM 04/17/2018	TOOL PART #			
	MFG. APPR.	DP 04/18/2018	RBW6305G11331-3G			
	APPROVED	ML 04/24/2018	TITLE			
DATE		4/24/2018	MAIN GEAR BOX INPUT PINION RING NUT WRENCH			
			SCALE			
			SHEET 8 OF 8			
			NTS			
GOVERNMENT IS NOT RESPONSIBLE FOR THE CONSEQUENCES OF THE USE OF THIS DOCUMENT OR THE INFORMATION CONTAINED HEREIN.						



Entered: _____ Date: _____

WORK ORDER NON-CONFORMANCE / ROUTE UPDATE

Route update only

NCR No. _____

Job: _____

Part No. _____

DISPOSITION

Rework ☐
Scrap ☐
Use-as-is ☐

DEPARTMENT/PROCESS

Skid-tube ☐
Machining ☐
Large Fab ☐

Cross tube ☐
Small Fab ☐
Finishing ☐

Eng. (Non-AW) ☐
Prod. Eng. Coord. ☐
Rec/Store/Packaging ☐

Engineering ☐
Water Jet ☐
Supplier ☐
Quality ☐

Date: _____

Sequence #: _____

QTY Affected: _____

MRB (QS1042)

Description Work Order Deviation

Disposition

Completed By _____

Lead hand / Supervisor _____

QC / QA Coordinator _____

Root Cause

Operator ☐
Manufacturing Process ☐
Equip/Tooling ☐
Handling/Preservation ☐
Material ☐
Product Improvement ☐
Process Improvement ☐
Human Factors ☐

FAULT CATEGORY

Pressure/Forced	Contamination	Power Loss/Surge	Positioned Wrong
Bending	Misaligned/off center	Folio/Program	Outside Tolerance
Crushing	BOM/Route	Grain Direction	Drawing
Cracks	Broken/Damage/Defect	Weld	Finish
Crimp/kink/Ripple/Wave/Twist	Incomplete/Unclear Instructions	Wrong Stock Pulled	Part Lost/Missing
Marks/Chatter	Drill Holes	Out of Sequence	Misread
Mislabeled	Fit/Function	Off-set/Set-up	

Other/Details: _____



PURCHASE ORDER
POHB044305

**Special Comments:**

DAS
61
9-89

364 AUG 29 2019

5206536

10 x AUG 29 2019

S 194740



Dart Aerospace Ltd.
1270 Aberdeen St
Hawkesbury, ON
K6A 1K7
Canada

Tel (613) 632-5200

PURCHASE ORDER

POHB044305



Items											
Line Item	Job	Part	Description	Status	Account	Due Date	Order Quantity	Received Quantity	Balance	Unit Price (CAD)	Extended Price
3	197837	RB T102137-107-109	Clevis 1-Issue P/O; Heat treat RC 32-38 2-Bead blast 3-Material type; 4140 Apply light oil after process 4-Certificate of Conformity is required	Firmed	-	8/29/19	14 pcs	0 pcs	14 pcs	\$14.7821/pcs	\$206.95
										Grand Total:	\$356.94

Order Notes

Procurement Quality Clauses
A005 right of entry
A012 chemical and physical test report
A016 personnel qualification
A017 raw material identification (as applicable)

A022 Apical Processing
A024 process certifications
A026 certification of material conformance

A041 quality management system
A042 dart notification by supplier
A043 retention of quality documents

A048 counterfeit parts avoidance, detection, mitigation and disposition program

A049 supplier awareness

Terms & Condition of Purchasing(Suppliers) and Procurement Quality Clauses are an integral part of our AS9100 requirements. To learn in detail, please visit www.dartaerospace.com for further explanation.

Plex 8/23/19 3:01 PM Dart.Guerin.Kimberley

Atlantic Heat Treating (2001) Ltd

Order No.: 169425

Ship Date: 23/8/2019

Shipping Ticket

Sold To: 1448**DART AEROSPACE LTD.**
1270 ABERDEEN ST

HAWKESBURY ON K6A 1K7

Ship To: 166291**DART AEROSPACE LTD.**
1270 ABERDEEN ST

HAWKESBURY ON K6A 1K7

Page 1 of 1

Purchase Order Number	Packing List No	Customer Job No	Route	Carrier
POHB044305 ✓				

Quantity	Part No. / Part Name / Part Description	Pounds
✓ 36	PCS MATERIAL 4140-4142 BEAD BLAST AND HEAT TREAT TO 30-35RC C OF C, PRT# RBW6305G11331-3G-07, JOB# 198070 ✓	DAS 61 9-89

Container Type	# Of Containers	Cust Cont Id.	Container Type	# Of Containers	Cust Cont Id.
BOX	1				

NOTICE: OUR LIABILITY IS LIMITED TO OUR INVOICE CHARGES ONLY

Shipped Complete

Quantity Shipped:

Pounds Shipped:

36

1.00

35RC
8-28-19
P**RECEIVED**

AUG 29 2019

DART AEROSPACE LTD.

Order No.: 169425

Shipped Complete

Quantity Shipped:

36.00

Received By:

Date:

Pounds Shipped:

1.00

Sold To: DART AEROSPACE LTD.

Shipped ON: 08/23/2019

Certification

Date: 08/28/2019

Entry Date: 08/23/2019

Page: 1 of 1

To:

DART AEROSPACE LTD.
1270 ABERDEEN ST

Purchase Order No.: POHB044305

Packing List No.:

HAWKESBURY ON K6A 1K7

Material: 4140

We are pleased to provide you with the following Certificate of Compliance.

Quantity	Part Number / Part Name / Part Description	Pounds
36	36 PCS MATERIAL 4140-4142 BEAD BLAST AND HEAT TREAT TO 30-35RC C OF C, PRT# RBW6305G11831-3G-07, JOB# 198070	1

DAS
61
9-89

Insp. Type	Scale	Minimum	Maximum	Number	Other
Customer Requirements:					

Harden rockwell

Results:

Harden ROCKWE	30.	35.	35. TESTED AS PER SAMPLING PLAN
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HEAT TREATED TO 35 RC AS PER CUSTOMER REQUEST

STATEMENT OF LIMITED LIABILITY (PLEASE READ CAREFULLY). ALL WORK IS ACCEPTED SUBJECT TO THE FOLLOWING CONDITIONS: It is recognized that even after employing all the scientific methods known to us, hazards still remain in metal treating. THEREFORE, OUR LIABILITY SHALL NOT EXCEED TWICE THE AMOUNT OF OUR CHARGES FOR THE WORK DONE ON ANY MATERIAL (FIRST TO REIMBURSE FOR THE CHARGES AND SECOND TO COMPENSATE IN THE AMOUNT OF THE CHARGES), EXCEPT BY WRITTEN AGREEMENT SIGNED BY THE METAL TREATER. THE CUSTOMER, BY CONTRACTING FOR METAL TREATMENT, AGREES TO ACCEPT THE LIMITS OF LIABILITY AS EXPRESSED IN THIS STATEMENT TO THE EXCLUSION OF ANY AND ALL PROVISIONS AS TO LIABILITY ON THE CUSTOMER'S OWN INVOICES, PURCHASE ORDERS OR OTHER DOCUMENTS. IF THE CUSTOMER DESIRES HIS OWN PROVISIONS AS TO LIABILITY TO REMAIN IN FORCE AND EFFECT, THIS MUST BE AGREED TO IN WRITING, SIGNED BY AN OFFICER OF THE TREATER, IN SUCH EVENT, A DIFFERENT CHARGE FOR OUR SERVICES REFLECTING THE HIGHER RISK TO TREATER, SHALL BE DETERMINED BY THE TREATER AND CUSTOMER. THE TREATER MAKES NO EXPRESS OR IMPLIED WARRANTIES AND SPECIFICALLY DISCLAIMS ANY IMPLIED WARRANTY OF THE FITNESS FOR A PARTICULAR PURPOSE OR MERCHANTABILITY, AS TO THE PERFORMANCE OF CAPABILITIES OF THE MATERIAL AS HEAT TREATED, OR THE HEAT TREATMENT. THE AFOREMENTIONED LIMITATION OF LIABILITY STATED ABOVE IS SPECIFICALLY IN LIEU OF ANY EXPRESS OR IMPLIED WARRANTY, INCLUDING ANY IMPLIED WARRANTY OF MERCHANTABILITY OR FITNESS, AND OF ANY OTHER SUCH OBLIGATION ON THE PART OF THE TREATER. No claim for shortage in weight or count will be entertained unless presented within five (5) working days after receipt of materials by customer. No claim will be allowed for shrinkage, expansion, deformity, or rupture of material in treating or straightening, except by prior written agreement, as above, nor in any case for rupture caused by or occurring during subsequent grinding. Whenever we are given material with detailed instructions as to treatment, our responsibility shall end with the carrying out of those instructions. Failure by a customer to indicate plainly and correctly the kind of material (i.e., proper alloy designation) to be treated, shall cause an extra charge to be made to cover any additional expense incurred as a result thereof, but shall not change the limitation of liability stated above. Customer agrees there will be no liability on the treater in contract for any special, indirect or consequential damages arising whatsoever, including but not limited to personal injury, property damage, loss of profits, loss of production, recall or any other losses, expenses or liabilities allegedly occasioned by the work performed on the part of the treater. It shall be the duty of the customer to inspect the merchandise immediately upon its return, and in any event claims must be reported prior to the time that any further processing, assembling or any other work undertaken. OUR LIABILITY TO OUR CUSTOMERS SHALL CEASE ONCE ANY FURTHER PROCESSING, ASSEMBLING OR ANY OTHER WORK HAS BEEN UNDERTAKEN ON SAID MATERIAL. No agent or representative is authorized to alter the above conditions, except by writing duly signed by an officer of treater.


KEAN SHEPHERD
QUALITY CONTROL
ATLANTIC HEAT TREATING 2001 LTD